

**AMENDMENTS TO THE DRAWINGS:**

The attached replacement sheet of drawings includes a change to Fig. 2 in which reference numeral 47 has been replaced with reference numeral 38. The attached replacement sheet of drawings replaces the sheet of drawings of Fig. 2 originally filed September 30, 2003.

**REMARKS**

Entry of the foregoing and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.111 and in light of the remarks which follow, are respectfully requested.

By the above amendments, the abstract has been amended to be less than 150 words. The drawings have been amended by replacing reference numeral 47 in Fig. 2, with reference numeral 38.

Claims 2, 4 and 7 have been canceled without prejudice or disclaimer. Claim 1 has been amended for clarification purposes by incorporating the features of claim 2. Claim 1 has also been amended for clarification purposes to recite "a small-angle X-ray scattering device" and aspects thereof. Support for this amendment can be found in the specification at least at pages 5, 6 and 9-11. Claim 1 has also been amended for clarification purposes to recite that "the sample-holding means is connected to provide the gas generated by the sample to the mass spectrometer using a carrier gas". Support for this amendment can be found at least at page 7, line 8 to page 8, line 1. Claims 3, 5 and 8 have been amended in accordance with the above amendments of claim 1, for readability purposes and/or for clarification purposes.

Claim 9 has been amended for clarification purposes to recite "a small-angle X-ray scattering device" and aspects thereof. Claim 9 has also been amended for clarification purposes by incorporating the features of claim 2 by reciting that "the mass spectrometer is capable of measuring the mass number of the gas generated by the sample". Claim 9 has also been amended for clarification purposes to recite applying X-rays to the sample "through an X-ray collecting means for focusing X-rays at one point"; detecting X-rays generated by the sample "using a two-dimensional X-ray detector for detecting X-rays at various points in a

plane"; and "providing the gas generated by the sample to the mass spectrometer using a carrier gas." Claim 9 has further been amended for readability purposes by adding the word "the" prior to "gas generated by the sample".

New dependent claim 10 depends from claim 1, and is directed to an addition aspect of the analyzing apparatus. Support for new claim 10 can be found in the specification at least at page 11, line 20 to page 12, line 4. New independent claim 11 has been added which is directed to the subject matter of original claim 6. In this regard, it is noted that the Official Action at page 6 indicates that claim 6 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims. As such, indication of the allowance of claim 11 is respectfully requested.

In the Official Action, the drawings stand objected to for containing a reference numeral which is not mentioned in the specification. As discussed above, a replacement drawing sheet of Figure 2 is filed herewith in which reference numeral 47 in Fig. 2 has been replaced with reference numeral 38. Reference numeral 38 is discussed at pages 3 and 4 of the present specification. Accordingly, withdrawal of this objection is respectfully requested.

The abstract stands objected to for exceeding 150 words. The new abstract set forth above is less than 150 words and, as such, withdrawal of this objection is respectfully requested.

Claims 3, 4 and 7 stand objected to for the reasons discussed at pages 2 and 3 of the Official Action. This objection is moot with regard to claims 4 and 7 in light of the above cancellation of such claims. With regard to claim 3, such claim has been amended by replacing the word "the" prior to "X-ray path" with "an". Accordingly, withdrawal of the claim objection is respectfully requested.

Claims 1, 3 and 7-9 stand rejected under 35 U.S.C. §102(b) as being anticipated by GB Patent Document No. 2,156,974 (*GB '974*). Without addressing the propriety of this rejection, it is noted that claims 1 and 9 have been amended to incorporate the features of claim 2, i.e., to recite a mass spectrometer capable of measuring the mass number of a gas generated by a sample. Claim 2 has not been rejected in the present §102(b) rejection. Accordingly, for at least this reason, withdrawal of the above rejection is respectfully requested.

Claims 2, 4 and 5 stand rejected under 35 U.S.C. §103(a) as being obvious over *GB '974* and further in view of U.S. Patent No. 5,528,032 (*Uchiyama*). As discussed above, claim 2 has been canceled, and the features thereof have been incorporated into claims 1 and 9. Applicant submits that claims 1 and 9 are allowable over the alleged combination of *GB '974* and *Uchiyama* for at least the following reasons.

Independent claim 1 is directed to an analyzing apparatus, and independent claim 9 is directed to an analyzing method.

*GB '974* relates to a scientific apparatus and a method for observing thermodynamic and structural properties of materials, and particularly to an instrument for simultaneous calorimetric and X-ray diffraction analysis (page 1, lines 5-7).

*GB '974* does not disclose or suggest each feature recited in independent claims 1 and 9. For example, as acknowledged at page 5 of the Official Action, *GB '974* does not disclose or suggest a mass spectrometer capable of measuring the mass number of a gas generated by a sample, as recited in each of claims 1 and 9.

Applicant respectfully submits that *Uchiyama* fails to cure the above-described deficiency of *GB '974*. In this regard, the Patent Office has asserted that one of ordinary skill in the art would have been motivated to incorporate the mass spectrometer of *Uchiyama* into

the *GB '974* apparatus in light of *Uchiyama's* disclosure that by use of the mass spectrometer, "a single reference can be set for measurement results obtained using this sort of device" (Official Action at page 5). Applicant respectfully but strenuously disagrees with the Patent Office's assertion.

*Uchiyama* discloses a thermal desorption gas spectrometer used to measure the mass numbers and ion intensities of molecules of a gas desorbed from a sample (col. 2, lines 15-20; col. 4, lines 34-40). In stark contrast, *GB '974* discloses that a reactive gas and a carrier gas are mixed and contacted with a sample, and the resulting gaseous reaction products are provided to a gas analyzer (page 5, line 65 to page 6, line 7). Clearly, the desorbed gas disclosed by *Uchiyama* and the gaseous reaction products disclosed by *GB '974* are formed under completely different conditions. Moreover, whereas *Uchiyama* discloses measuring a gas formed from a material adsorbed to the sample, *GB '974* relates to the measurement of products formed from a reaction of reactive gases with the sample. In light of the differences between the gases measured in *Uchiyama* and *GB '974*, it is apparent that one of ordinary skill in the art would not have been motivated to replace the gas analyzer of *GB '974* with the thermal desorption gas spectrometer disclosed by *Uchiyama*.

For at least the above reasons, it is apparent that no *prima facie* case of obviousness exists. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited.

If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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Date: April 4, 2005

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